

AMENDMENTS TO THE CLAIMS

1. (Currently amended) An actuating member for a railway vehicle brake assembly, such railway vehicle brake assembly having an air bag actuator incorporated therein, said air bag actuator having at least one inflatable air bag spring, said actuating member comprising:

(a) a first substantially vertically disposed plate ~~like~~ member, said first substantially vertically disposed plate ~~like~~ member having a first substantially planar surface engageable with a first surface of a second substantially vertically disposed plate ~~like~~ member attached to such air bag actuator, said first substantially vertically disposed plate ~~like~~ member exposing at least a first portion of an exterior surface of such at least one inflatable air bag spring to an atmospheric operating environment characterized by a presence of detrimental extraneous foreign material when such railway car mounted brake assembly is in use;

(b) a substantially horizontally disposed plate ~~like~~ member connected to said first substantially vertically disposed plate ~~like~~ member adjacent a bottom edge thereof and extending substantially perpendicular to said first substantially planar surface of said first substantially vertically disposed plate ~~like~~ member for shielding at least said first portion of said

exterior surface of such air bag actuator from said detrimental extraneous foreign material; and

(c) a means connected to a radially opposed second surface of said first substantially vertically disposed plate ~~like~~ member for securing said actuating member to ~~a control~~ an actuating linkage of such railway vehicle brake assembly.

2. (Currently amended) An actuating member, according to claim 1, wherein said actuating member further includes a first plate ~~like~~ member connected to an upper surface of said substantially horizontally disposed member and to said first planar surface of said first substantially vertically disposed plate ~~like~~ member adjacent a first side edge thereof and extending substantially perpendicular to at least said substantially horizontally disposed member for shielding at least a second portion of such air bag actuator from said detrimental extraneous foreign material and for providing added strength between said first substantially vertically disposed member and said substantially horizontally disposed member.

3. (Currently amended) An actuating member, according to claim 2, wherein said actuating member further includes a second plate ~~like~~ member connected to said upper surface of said substantially horizontally disposed member and to said first

planar surface of said first substantially vertically disposed plate ~~like~~ member adjacent a second side edge thereof and extending substantially perpendicular to at least said substantially horizontally disposed member for shielding at least a third portion of such air bag actuator from said detrimental extraneous foreign material and for providing added strength between said first substantially vertically disposed member and said substantially horizontally disposed member.

4. (Currently amended) An actuating member, according to claim 1, wherein said first substantially vertically disposed plate ~~like~~ member includes at least one mounting aperture formed therethrough for enabling securing of such air bag actuator to said first substantially vertically disposed plate ~~like~~ member.

5. (Currently amended) An actuating member, according to claim 1, wherein said means connected to said radially opposed second surface of said substantially first vertically disposed plate ~~like~~ member for securing said actuating member to such control linkage of such railway vehicle brake assembly includes at least one plate member having an aperture formed therethrough and a pin member disposed in said aperture for securing said at least one plate member to such ~~control~~ actuating linkage.

6. (Currently amended) An apparatus for mounting an air bag actuator to at least one brake beam, said air bag actuator having at least one inflatable air bag spring, said apparatus comprising:

(a) a first substantially vertically disposed plate ~~like~~ member having a planar surface portion for engagement with a substantially planar surface portion of a second substantially vertically disposed plate ~~like~~ member connected to such air bag actuator, said first substantially vertically disposed plate ~~like~~ member exposing at least a first portion of an exterior surface of such at least one inflatable air bag spring to an atmospheric operating environment characterized by a presence of detrimental extraneous foreign matter when such railway car mounted brake assembly is in use;

(b) a guide means directly connected to and disposed closely adjacent a first outer edge of and substantially perpendicular to said planar surface portion of said first substantially vertically disposed plate ~~like~~ member for guiding and alignment during reciprocal motion of such air bag actuator; and

(c) a securing means connected to said first substantially vertically disposed plate ~~like~~ member for enabling attachment of said apparatus to a rigid structure.

7. (Currently amended) An apparatus, according to claim 6, wherein said apparatus includes a second guide means, said second guide means directly connected to and disposed closely adjacent a second outer edge of and substantially perpendicular to said planar surface portion of said first substantially vertically disposed plate ~~like~~ member for guiding and alignment during reciprocal motion of such air bag actuator.

8. (Currently amended) An apparatus, according to claim 6, wherein said planar surface portion of said first substantially vertically disposed plate ~~like~~ member includes at least one aperture formed therethrough for enabling attachment to such air bag actuator.

9. (Currently amended) An air spring actuator assembly, said air spring actuator assembly comprising:

(a) at least one air bag spring having at least a first portion of an exterior surface exposed to an atmospheric operating environment characterized by a presence of detrimental extraneous foreign material during use of said air spring actuator assembly;

(b) a first substantially vertically disposed plate ~~like~~ member, said first substantially vertically disposed plate ~~like~~ member having a first substantially planar surface engageable

with a first surface of a second substantially vertically disposed plate ~~like~~ member attached to said at least one air bag spring;

(c) a substantially horizontally disposed plate ~~like~~ member connected to said first substantially vertically disposed plate ~~like~~ member adjacent a bottom edge thereof and extending substantially perpendicular to said first substantially planar surface of said first substantially vertically disposed plate ~~like~~ member for shielding said at least said first portion of said exterior surface of said at least one air bag spring from said detrimental extraneous foreign material;

(d) a means connected to a radially opposed second surface of said first substantially vertically disposed plate ~~like~~ member for securing said first substantially vertically disposed plate ~~like~~ member to ~~a control~~ an actuating linkage of a railway vehicle brake assembly;

(e) a third substantially vertically disposed plate ~~like~~ member having a second planar surface portion for engagement with a substantially planar surface portion of a ~~forth~~ fourth substantially vertically disposed plate ~~like~~ member connected to said at least one air bag spring;

(f) a guide means connected to and disposed closely adjacent a first outer edge of and substantially perpendicular to at least one of said first substantially planar surface and

said second planar surface portion of a respective one of said first and said third substantially vertically disposed plate ~~like~~ members for guiding and alignment during reciprocal motion of such air bag spring; and

(g) a securing means connected to said third substantially vertically disposed plate ~~like~~ member for enabling attachment of said air spring actuator assembly to a rigid structure.

10. (Currently amended) An air spring actuator assembly, according to claim 9, wherein said means connected to a radially opposed second surface of said first substantially vertically disposed plate ~~like~~ member for securing said first substantially vertically disposed plate ~~like~~ member to a ~~control~~ such actuating linkage of [[a]] such railway vehicle brake assembly includes a ~~push rod and a shield member for substantially protecting said at least one air bag spring from foreign matter~~ damage pair of elongated members, each of said pair of elongated members extending outwardly and substantially perpendicular to said first substantially vertically disposed plate and having an aperture formed therethrough adjacent to and spaced from a distal end thereof.

11. (Previously presented) An air spring actuator assembly, according to claim 9, wherein said air spring actuator assembly

further includes means disposed therein for limiting reciprocal motion of said air spring actuator during evacuation of air pressure from said at least one air bag spring.

12.. (Previously presented) An air spring actuator assembly, according to claim 11, wherein said means for limiting reciprocal motion of said brake actuator is a rigid member disposed internally within said air spring actuator.

13. (Previously presented) An air spring actuator assembly, according to claim 9, wherein said air spring actuator further includes an air inlet in communication with said at least one air bag spring.

14.-15. (Canceled)

16. (Previously presented) An air spring actuator assembly, according to claim 9, wherein said air spring actuator further includes a means for visual determination of a travel length of said air spring actuator.

17. (Previously presented) An air spring actuator assembly, according to claim 16, wherein said visual travel determination means is a linear measuring device.

18. (Previously presented) An air spring actuator assembly, according to claim 9, wherein said air spring actuator assembly further includes means disposed therein for controlling volume of air in said at least one air bag spring.

19. (Currently amended) In a railway car mounted brake assembly including a pair of brake beams mounted at each end of such car mounted brake assembly, each of such brake beams having a brake head attachable to each end thereof, each of such brake heads carrying a brake shoe thereon, each of such brake heads being positioned for engagement of a respective one of such brake shoes with a respective railway vehicle wheel during a brake application, each of such brake beams having a ~~control linkage~~ force-transfer lever pivotally attached thereto, a first force transmitting member attached to opposed first ends of each ~~of such control linkages~~ force-transfer lever and a second force transmitting member attached to a second end of ~~one of~~ such ~~control linkage~~ each force-transfer lever, and ~~longitudinally extending toward a respectively opposed second end of such control linkage:~~ the improvement comprising an air spring actuator connectable to and disposed intermediate ~~such second~~ one force transmitting member and one ~~such second control~~

~~linkage~~ force-transfer lever for applying and releasing such brake beams, said air spring actuator comprising:

(a) a first substantially vertically disposed plate ~~like~~ member having a first substantially planar surface and a means connected to said first substantially vertically disposed plate ~~like~~ member for securing said air spring actuator to such ~~second~~ ~~control-linkage~~ one force-transfer lever;

(b) a second substantially vertically disposed plate ~~like~~ member having a second substantially planar surface and a means connected to said second substantially vertically disposed plate ~~like~~ member for securing said air spring actuator to one of such brake beam, such second force transmitting member and a combination thereof; and

(c) at least one inflatable air bag spring having a pair of substantially vertically disposed planar surfaces for engagement with and attachment to said first substantially planar surface of said first substantially vertically disposed plate ~~like~~ member and said second substantially planar surface of said second substantially vertically disposed plate ~~like~~ member, whereby selective inflation and deflation of said at least one inflatable air bag spring in a longitudinal direction enables a reciprocal motion thereof to move such ~~control-linkages~~ force-transfer levers and such force transmitting members for actuating and deactuating such brake beams, wherein an exterior

surface of said at least one inflatable air bag spring is at least partially exposed within such railway car mounted brake assembly to an atmosphere when such railway car mounted brake assembly is in use.

20. (Currently amended) The improvement according to claim 19, wherein said air spring actuator includes means attached to said first substantially vertically disposed plate ~~like~~ member for shielding at least a portion of said at least one inflatable air bag spring from detrimental extraneous foreign material.

21. (Currently amended) The improvement according to claim 19, wherein said air spring actuator includes means disposed with said first substantially vertically disposed plate ~~like~~ member and said second substantially vertically disposed plate ~~like~~ member for guiding and alignment thereof during said reciprocal motion of said at least one inflatable air bag spring.

22. (New) In combination with a railway car brake assembly, an air spring actuator assembly comprising:

(a) at least one air bag spring having at least a first portion of an exterior surface exposed to an atmospheric

operating environment characterized by a presence of detrimental extraneous foreign material during use of said air spring actuator assembly;

(b) a first substantially vertically disposed plate member, said first substantially vertically disposed plate member having a first substantially planar surface engageable with a first surface of a second substantially vertically disposed plate member attached to said at least one air bag spring;

(c) a substantially horizontally disposed plate ~~like~~ member connected to said first substantially vertically disposed plate member adjacent a bottom edge thereof and extending substantially perpendicular to said first substantially planar surface of said first substantially vertically disposed plate member for shielding said at least said first portion of said exterior surface of said at least one air bag spring from said detrimental extraneous foreign material;

(d) a pair of elongated members, each of said pair of elongated members extending outwardly from a radially opposed second surface of said first substantially vertically disposed plate member and having an aperture formed therethrough adjacent to and spaced from a distal end thereof for securing said first substantially vertically disposed plate member to an actuating linkage of said railway vehicle brake assembly;

(e) a third substantially vertically disposed plate member having a second planar surface portion for engagement with a substantially planar surface portion of a fourth substantially vertically disposed plate member connected to said at least one air bag spring;

(f) a guide means connected to and disposed closely adjacent a first outer edge of and substantially perpendicular to at least one of said first substantially planar surface and said second planar surface portion of a respective one of said first and said third substantially vertically disposed plate members for guiding reciprocal motion of said at least one air bag spring; and

(g) a securing means connected to said third substantially vertically disposed plate member for attaching said air spring actuator assembly to a rigid portion of said railway vehicle brake assembly.